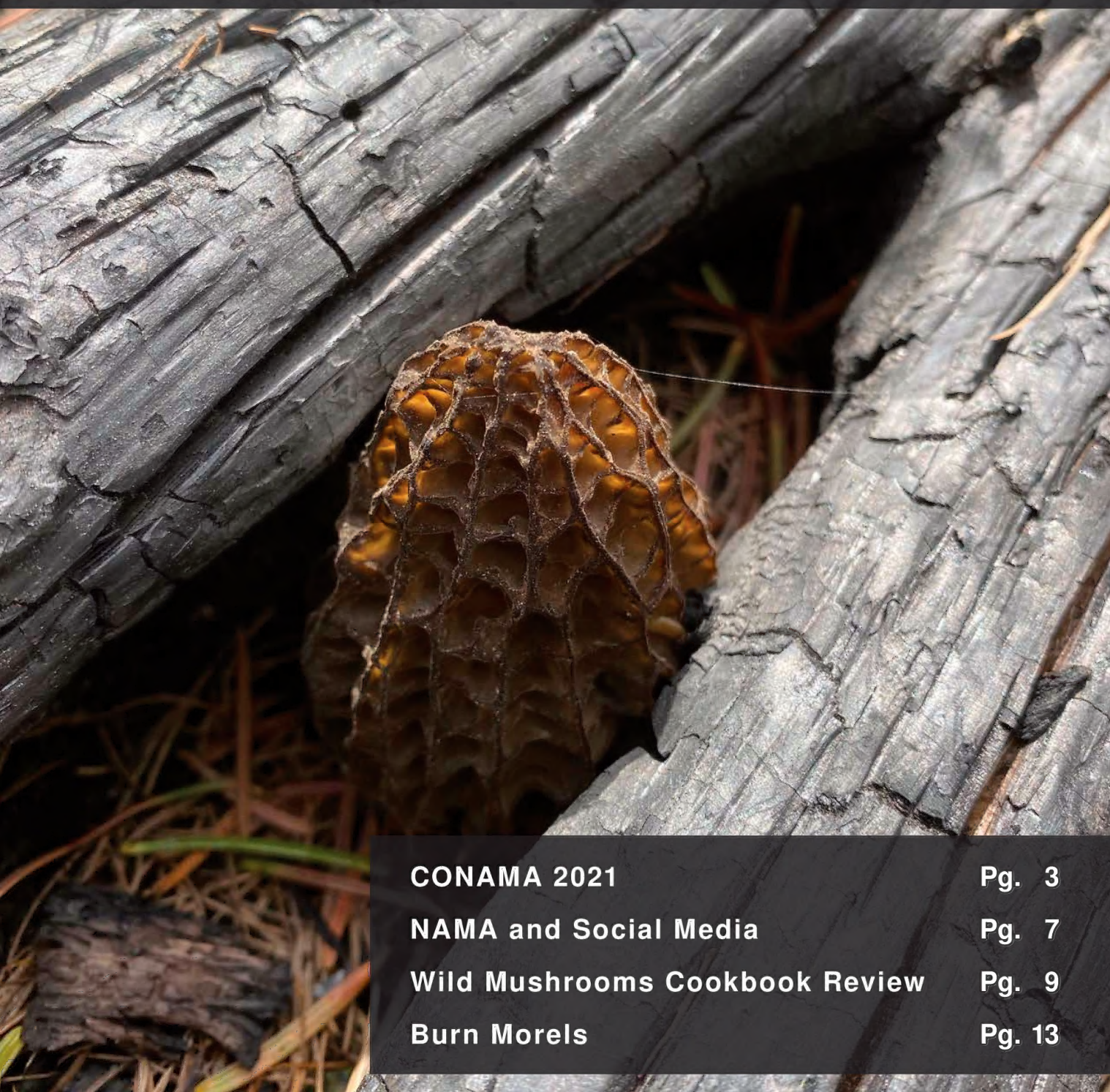
THE MYCOPHILE

Newsletter of the North American Mycological Association



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May-June 2021

www.namyco.org

PRESIDENT'S MESSAGE

Barbara Ching, *NAMA President*

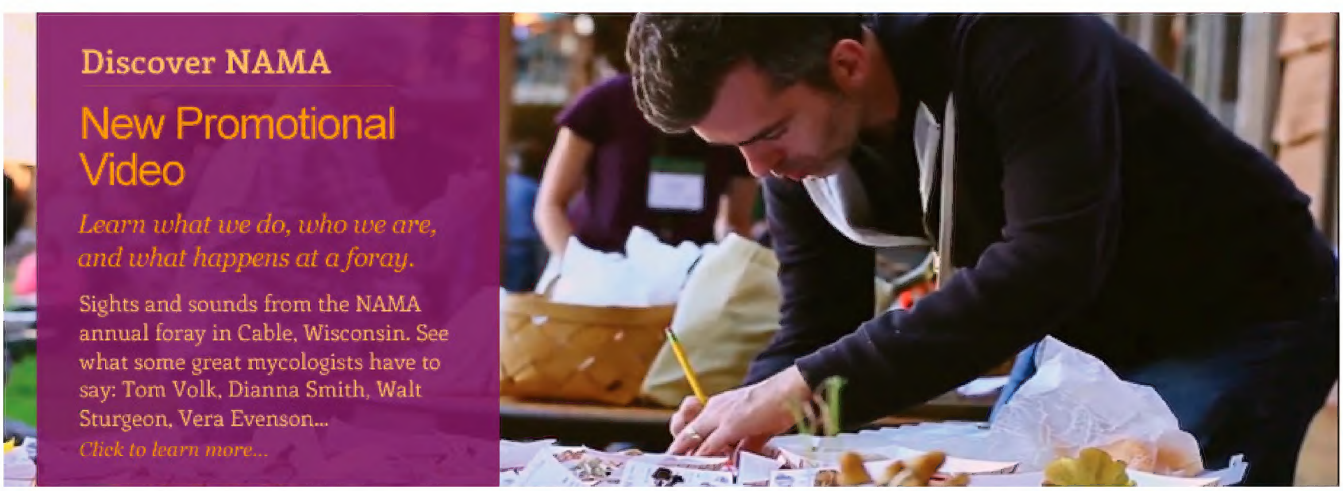
The mushrooms are my favorite part of NAMA forays. Duh! Specifically, I love the tables full of mushrooms that we NAMA members bring in from the woods wherever we are and that our expert identifiers voucher and deposit at the Field Museum in Chicago. I visit the tables two to three times a day during the foray to see what we are finding and feast my eyes on species I have only seen in books before that moment or never knew existed at all! The late afternoon "table talks" by the mycologists teach me more about how to observe and identify.

This process involves the whole "Mycological Association" part of "us." It also fulfills our motto, or mission, as stated at the top of our website: "Pursuing, promoting, and advancing the science of mycology." Once our vouchered specimens land in the Field Museum, mycologists and mycophiles from anywhere in the world can use them in their research or simply to satisfy their curiosity.

In short, the tables put the "US" in fungus. And don't forget about the "fun." Our association will feast and foray together in the Colorado Rockies this summer, so read on and make your plans to be there!

If you've never attended a NAMA foray before, check out this video on the NAMA homepage. The video still below shows an identifier preparing a specimen to put on the eye candy table.

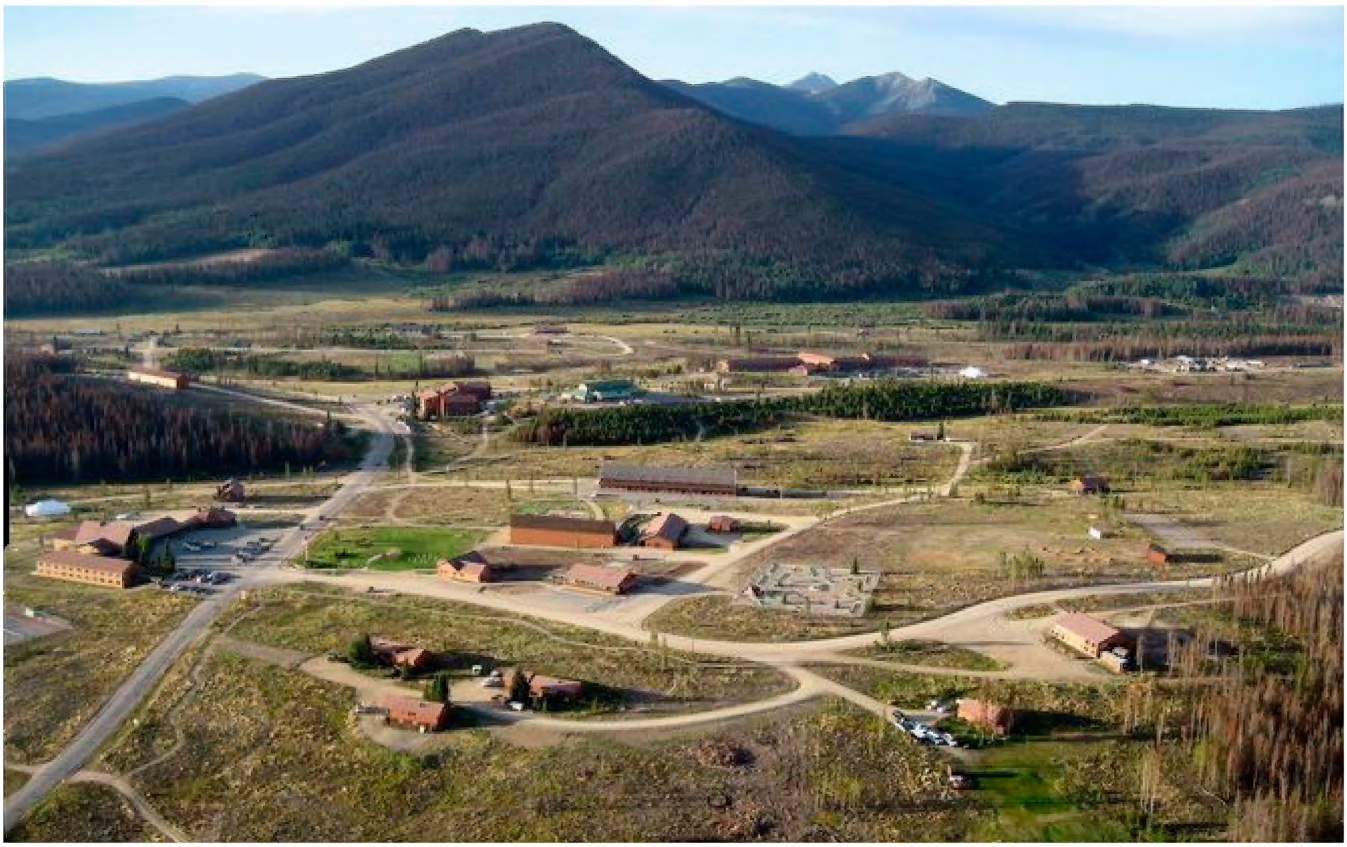
https://namyco.org/


Discover NAMA
New Promotional Video
Learn what we do, who we are, and what happens at a foray.
Sights and sounds from the NAMA annual foray in Cable, Wisconsin. See what some great mycologists have to say: Tom Volk, Dianna Smith, Walt Sturgeon, Vera Evenson...
Click to learn more...

COVER PHOTO: Burn morel by Kristen and Trent Blizzard

CONAMA AUGUST 12-15, 2021

by Sam Landes



It's the moment we have been waiting for—registration time for the 2021 NAMA Foray! General registration will open on Saturday, May 15th and will close either when full, or by July 20th. Day pass registration opens on June 1st.

Foray Pricing and Lodging Options

The cost for the foray room and board is $270 for a double occupancy room with 2 Queen Beds and a private bathroom. The registration fee is $125, which brings the total to $395 per person.

A single room will cost $425 for room and board plus the $125 registration fee bringing the total to $550.

If you wish to arrive a day or two earlier, you must contact Snow Mountain Ranch personally to book those days. Tell them that you are staying on for the NAMA Foray. If you are traveling with children or other family members you will be asked to contact the Registrar when registering. There are some campsites left on the Snow Mountain campus. You would need to call the booking number to reserve a spot yourself. There are also some cabins available if a group of you wish to rent a cabin. If you want to camp off of the grounds here is a link to nearby campgrounds: https://www.uncovercolorado.com/camping-near-granby-grand-lake-co/

Camping off grounds, at campsites, or in cabins means you will need to buy a day pass. Day pass information and rates are still being finalized as of this publication date. Please check the NAMA website for updates https://namyco.org/events.php

Important COVID Information

NAMA will follow all Colorado and Grand County

COVID restrictions. We ask all members to wear masks when inside and in groups, and to practice social distancing as possible.

Transportation

Transportation from the Denver airport is available from Home James https://www.ridehj.com/ You must contact them yourself to book a ride. Advance reservations are suggested for all services.

About the Foray Site

YMCA of the Rockies
Snow Mountain Ranch
516 E Agate Ave, Granby, CO 80446
(970) 887-2311

Snow Mountain Ranch YMCA Camp is located in Granby, Colorado near Winter Park. The Camp sits on 5,000 acres of beautiful mountainous terrain. We will be staying in a group of lodges which have motel type rooms. (Indian Peaks Lodge, Aspenbrook Lodge and Silver Sage Lodge.) All the lodges are within walking distance of the Schlessman Commons Dining Hall, where we will have our meals as well as some of our presentations. The dining room will include vegan/ vegetarian options as well as gluten free. You will indicate your eating requests on the registration form.

Snow Mountain Ranch has great hiking trails and is located within 10 to 15 minutes from Granby. Our buses will leave from the parking lots near the lodges for our half-day and full-day forays on Thursday afternoon, Friday and Saturday mornings and afternoons.

Traveling with someone who wants to visit the area? Please visit the Granby, Colorado Chamber of Commerce site for information about the surrounding area. https://granbychamber.com/ The spectacular Rocky Mountain National Park is nearby and worth a visit as well. https://www.nps.gov/romo/index.htm

Snow Mountain Ranch's policies on smoking, alcohol and firearms: We are proud that Snow Mountain Ranch provides a clean-air environment. Please respect our non-smoking policy in all facilities. We provide special fire-safe ashtrays in several outdoor areas designated for smoking.

Alcoholic beverages are not sold on-grounds and may be consumed only in the privacy of your room, cabin or group meeting space.

As a private property, YMCA of the Rockies prohibits public display of firearms on its campuses, except during YMCA-sanctioned events. Additionally, we require that guests traveling with firearms keep them unloaded at all times while on our properties, encased with a trigger lock in place. YMCA of the Rockies will not service any YMCA facilities where a firearm is discovered, locked or unlocked. If a staff member discovers a firearm in a YMCA facility after check out has occurred, staff will immediately contact security to request an urgent response from the County Sheriff's Office.

2021 Speakers

This year we have a unique lineup of local speakers with a mix of academic and field experience. Our Chief Mycologist is **Amy Honan** of Western Colorado University who teaches a fungi course and established and curates the fungal collection at the university. She will speak on "The State of Fungi in Colorado."

Ed Lubow, former president of the Colorado Mycological Society (twice), has taught the mushroom identification class for Denver Botanic Gardens since 2015. He will speak on local ecosystems, geological features, and types of fungi we may find.

Ikuko Lubow will speak about mushroom photography with smartphones and pocket cameras, why we take mushroom photos, what we see in them, and how to make photo taking fun.

Dr. Sara Branco, Assistant Professor at the Department of Integrative Biology at University of Colorado Denver, her talk will focus on the evolution of heavy metal tolerance in *Suillus*.

Jon Sommer is the current president of the Colorado Mycological Society. He will lead the beginner's class on Friday morning, focusing on key features for the field identification of mushrooms and other fleshy fungi. He will review the various habitats, ecosystems, substrates, and mushrooms' relationships with their environment (trophic level.) He will introduce all the major groups of fleshy fungi and the key features used to identify them.

Trent Blizzard is a certified Wild Mushroom Identification Expert in his home state of Colorado. As a modern forager, he uses digital mapping, social media, GPS, phone apps, and even satellite internet while on the road. His topic is "Burn Morels in Colorado and the West."

Dr. Heather Hallen-Adams is a professor in the Department of Food Science and Technology at the University of Nebraska-Lincoln (since 2010), where she considers her mandate to encompass "any where food and fungi intersect" (including edible mushrooms, poisonous mushrooms, fermentations, mycotoxins, and fungi in the human gut). She will speak on "Amatoxins: Why and how? A natural history of amatoxins and amatoxin-producing mushrooms."

Alisha Quandt, Assistant professor at the University of Colorado in Boulder, is interested in all aspects of fungal biology. Her research is focused on addressing three fundamental: (1) How do fungi evolve the ability to switch hosts or adapt to utilize various substrates? (2) How do fungi interact with other microorganisms? and (3) Where are potential unexplored habitats of novel fungal diversity?

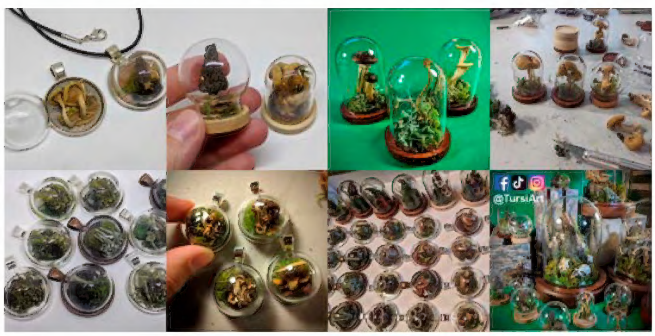
Carolina Paez is a Ph.D. candidate in the Department of Botany and Plant Pathology at Oregon State University in Dr. Joey Spatafora's lab. She is the winner of NAMA's 2020 Mycological Society of America Scholarship. Her talk topics are "Greetings from Belowground, Look Twice for Truffles" and "Conifer Islands in the Sky: The Impact of Isolation on *Rhizopogon* Communities."

Additional Workshops

We will be holding a **microscopy workshop**. More details will be on the registration form.

We may offer at least one more Mushroom art-related workshop; possibly a dyeing workshop. Details will be on the registration form.

Build your own Tiny Mushroom Terrarium!



Instructor: Rose Tursi (TursiArt.com, @TursiArt on social media)

The workshop will start with an overview on how to dehydrate organic materials for preservation in a sealed glass terrarium, and how to treat moss and lichen with alcohol based pigments to preserve color. Each participant will then create their very own mushroom terrarium from prepared materials, learning best techniques for placement, what glues to use, Dos and Don'ts, etc.

Participants will leave with their own terrarium dome with wooden base or a terrarium pendant with cord necklace. Supplies to make additional terrariums will be available in limited quantities for an additional fee. If you have your own (very tiny) dehydrated mushroom specimen you'd like to use, feel free to bring it. Otherwise, all materials will be provided.

We will hold one class on Friday and one on Saturday. Class limit 20 students per session.

$25 per person

SUMMARY OF NAMA'S BOARD OF TRUSTEES AND EXECUTIVE COMMITTEE MEETINGS

by Harold Goltz

NAMA's *Regulation and Policy Manual*, *2017 Revision*, states that our Secretary is to post summaries of our Board of Trustees and Executive Committee meetings, including financial reports, in *The Mycophile*.

Subsequent to our 2019 Annual full Board of Trustees Meeting in Paul Smith's College, New York, there have been 4 Executive Committee meetings, 8 partial Board of Trustees meetings, and a 2-part Annual full Board of Trustees meeting in 2020. All meetings after Paul Smiths' have been virtual, via Zoom. Throughout the last "viral year" NAMA remains fiscally sound, stable in membership, has converted our terrific *Mycophile* to digital only, has held well-attended Zoom programs for members, and looks forward to a great CONAMA annual meeting and foray this August.

NAMA's **Executive Committee** includes the elected offices of President, 1st Vice President, 2nd Vice President, Secretary, Membership Secretary, and Treasurer, plus the Immediate Past-President, the Executive Secretary (ex-officio) appointed by the Board, and three additional Trustees appointed by the President. The full **Board of Trustees** typically meets at the Annual Meeting, and is composed of the Executive Committee, the Institutional Trustees, the Regional Trustees and the Club Trustees.

Over 100 pages of meeting minutes, plus associated Officer, Regional Trustee, and Committee annual reports have been reduced and "summarized" to 8 pages that are posted for members on the NAMYCO.org website linked as follows: https://www.namyco.org/docs/2021.03.15_NAMA_2019-2020_Meetings_Summary.pdf. Members may also log into NAMYCO.org under "member," go to the Resources tab and open Board Minutes. The informational NAMA Regulation and Policy Manual is also posted there.

To receive complete minutes and reports, contact NAMA Secretary, Howard Goltz at: secretary@namyco.org.

Howard joined NAMA in 2012 and is in the first year of his second, three-year term. He has been a member of the Minnesota Mycological Society since 2011, was their club's Secretary, and currently serves as the coordinator of their Annual Mushroom Photography Contest.

NAMA AND SOCIAL MEDIA

by Adam H. Cohen

NAMA made its first post on Instagram under the account @northamericanmyco by Adam Cohen on March 3rd and had 23 followers but no posts. As of April 15th, the NAMA account has 1,725 followers and a great deal of likes and comments, meaning followers of the account are interacting with the posted content. Approximately six posts were made initially using a variety of content, including NAMA's recent newsletter cover, private art, photo winners from the 2020 Picture Contest, and a book review covered in the NAMA newsletter, *The Mycophile*.

These six posts were modestly successful in drawing dozens of followers. However, the steep increase in the account's audience has been achieved with what is referred to as a "takeover". In essence, a mycophile will take over the NAMA Instagram account and post their own content and stories for a period of one week. The stories are later posted for permanent viewing. The first takeover occurred on

Anthracophyllum lateritium by @mushroom_madman

March 14th by a biotech researcher located in Oakland, CA named Damon Tighe. Damon catapulted the NAMA account with 100s of followers added over the course of the week. Next was Kristen Wickert, who goes by the moniker @kaydubsthehikingscientist and is a PhD entomologist and plant pathologist with a strong interest in mushrooms. Next was Gordon Walker, @fascinatedbyfungi who has 125k followers, and Mandie Quark, @mushroom_madman. Preview some of the interesting images here to get a feel for the content that has been shared with @northamericanmyco's followers and maybe even start an Instagram page yourself and become a follower!

NAMA would like to extend an special thanks to the following influencers who contributed their time and content to advance NAMA's Instagram account, @northamericanmyco:

Mr. Damon Tighe @damontighe March 14th to March 20th, 2021

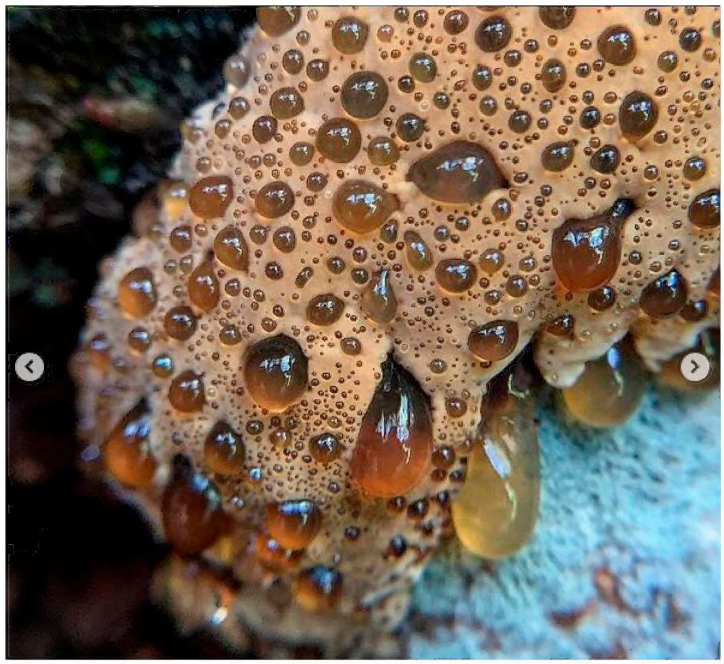
Dr. Kristen Wickert @ kaydubsthehikingscientist March 21st to March 26th, 2021

Dr. Gordon Walker @fascinatedbyfungi March 27th to April 3rd, 2021

Mandie Quark @mushroom_madman April 4th to April 9th, 2021

Jeremy Umansky @tmgastronaut April 10th to April 16th, 2021

Tugrul DeLuce @two_gnomes April 17th to April 23rd, 2021

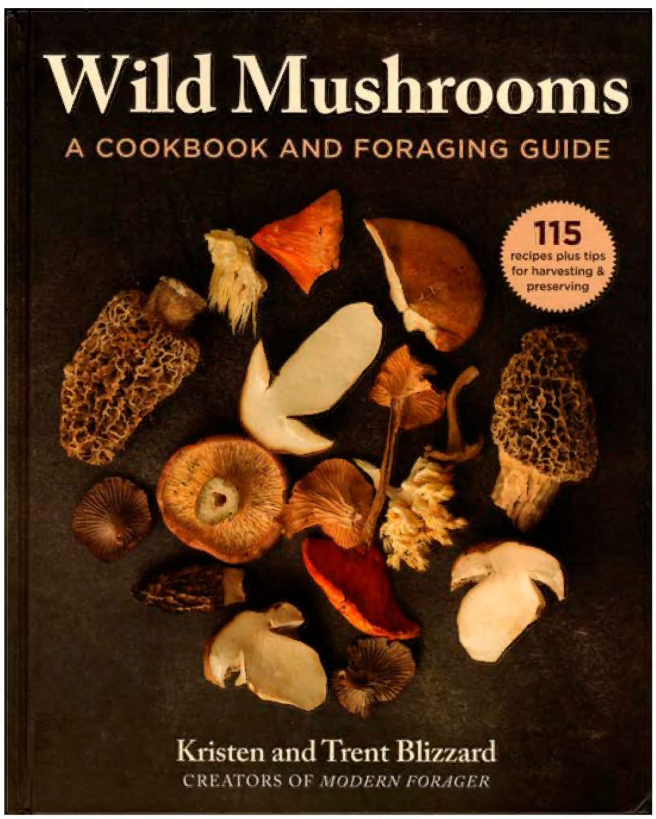


Inonotus dryadeus guttation by @fascinatedbyfungi

Treasures of the Appalachian region
by @kaydubsthehikingscientist

WILD MUSHROOMS: A COOKBOOK AND FORAGING GUIDE

Book Review by Derek Hevel



Wild Mushrooms: A Cookbook and Foraging Guide, By Kristen and Trent Blizzard

Skyhorse Publishing. 2020.
Hardcover, 304 pages
ISBN-10 : 1510749438
Available at https://www.modern-forager.com/book/

A new mushroom cookbook from 2020, Wild Mushrooms: A Cookbook and Foraging Guide, is written by Kristen and Trent Blizzard (who run Modern Forager online.) It's not only a cookbook, but also a story about foragers and our community.

After a quick review of the cover and a scan through the pages of the book, I want to dive right in. Design and layout have always been important to me, and the Blizzards and their graphic designers seem to have gotten most of it right with easy-to-find content, dynamic layouts, insets featuring mushroom foragers, and well-organized recipes. The font colors and sizes are a bit much, but you could easily occupy your senses for hours just flipping through without even cooking at all.

This is definitely a "forest-to-table" kind of book, which is the title of the first chapter. Two other chapters cover preservation and cooking techniques, giving the reader an idea of what's unique about cooking with mushrooms. Most of the chapters of the book cover individual species of popular foraged mushroom, allowing the reader to take a species they have found (or bought at the grocery store, perhaps?) and use it in a dish. About fourteen well-known edible species are covered, but leaving out some of the less-popular culinary wild mushrooms growing in our forests. Each chapter starts with a description of hunting and harvesting the species, how to work with it in the kitchen, and how to preserve it for later.

Scattered throughout the book are vignettes featuring established foragers across the US and their particular sphere of influence; this lays a lovely backdrop to the recipes and the reader's experience making the dishes. It should be noted that most of the 115 recipes in the cookbook come from these forager-cooks, making it more of a collective of myco-cuisine than an expression of the Blizzards' own glory in the kitchen. The approach works well to illustrate the relationships we build in our myco-community, but sometimes the overall "flavor arc" of the book gets a little lost since the recipes come from so many sources. In contrast to the older cookbook strategy of just adding mushrooms to already-flavorful dishes, this cookbook takes a step in the direction of celebrating the unique flavors of the mushrooms themselves.

I tried out about twelve of the book's recipes using my own foraged mushrooms. Most recipes were successful, but a couple were less so. I really

enjoyed the Lobster Mushroom and Butternut Squash Soup, and the Porcini and Gruyère Gougeres, and am sure to find additional gems as I cook through the book. A few of the recipes resulted in mushrooms that were overwhelmed by too much tomato sauce or other stronger flavors, but I'll know next time to adjust the qualities to my own liking. I was pleased to find so many recipes for sweets, which tend to be the "undiscovered country" in mushroom cuisine.

If you are a new or seasoned mushroom forager and cook, this book is worth a read. It might be good for newbies who are finding their first edible mushrooms in the wilds of the US, and equally so for those who have foraged for and cooked with all the species for many years, but are looking for new recipes. For both kinds of cooks, the book offers the broader story about foraging for wild mushrooms and the community that has developed around it. Recommended!

CHAPTER 2

Preservation Techniques

We spend a lot of time figuring out how to preserve our harvests. It is an important problem! The reality of mushrooms is that they tend to flush in large numbers. This means the modern forager ends up back in their kitchen with five or fifty pounds of mushrooms. Quickly getting those preserved so they can be enjoyed over the next month, year, and beyond is part of the process.

Dehydration

Drying is an iconic and popular way to preserve mushrooms. Dehydrating reduces them to smaller units that can be kept at room temperature in jars or bags. If stored properly, dehydrated mushrooms can be enjoyed *years* later. Elinoar Shavit and Langdon Cook will tell you that decades-old porcini and morels are tastier, like fine wines that have aged. Drying is preferred by many for porcini, morels, black trumpets, yellowfoot, reishi, chaga, and turkey tail. We tend to prefer other preservation techniques for chanterelles, hedgehogs, matsutake, lion's mane, and chicken of the woods. Still, there is no hard-and-fast rule—decide what you like best!

There are many ways to dry mushrooms. We recommend an inexpensive electric food dehydrator, which you can purchase at any big box store. If possible, get one with time and temperature controls and set your mushrooms to dry in the range of 125 to 135°F. You can set the temperature higher for larger batches, or lower for smaller quantities. Expect to run the dehydrator for at least twelve hours per batch, although times can vary significantly. Some suggest drying mushrooms at lower temperatures. If you have the luxury of time and the tools available, low-temperature drying can protect the flavor and nutritional qualities of your fungi. Low temperature generally means about 110°F.

If you don't have a dehydrator, the oven will do in a pinch. Set the temperature as low as it will allow. Your final product may be of lower quality due to higher or varying temperatures and lack of airflow, but your mushrooms will still be delicious! We recommend using oven-dried fungi within several months, as they may not stand the fine wine test of time.

A bit of sun drying is always a plus, as mushrooms create a tremendous amount of vitamin D with even slight exposure to the sun. Give them an afternoon in the sun to give them a slight tan. Note that if you air-dry your mushrooms outside, a finish cycle in the dehydrator is recommended.

HINTS

JEEM PETERSON recommends giving a mushroom you've only eaten one way another chance. Whether dried, frozen, or fresh, mushrooms change flavor and texture depending how they've been prepared. Read more about Jeem on page 194.

BOOK REVIEWS FOR *THE MYCOPHILE*

One of NAMA's committees that remains little known to probably the bulk of the membership is the Editorial and Literature Committee, the literature function of which is coordinated by Steve Trudell. The committee has several charges in the NAMA Policy Manual but an important one is to provide reviews of books, DVD's, apps, software programs, and the like for publication in The Mycophile. If you learn of a new book (or DVD or whatever) that you feel would be of interest to other NAMA members, or if you would like to write a review, please contact Steve (mycecol@uw.edu) so that he can coordinate acquisition of the items and submission of reviews to the newsletter.

CALL FOR NOMINATIONS:
NAMA PRESIDENT, FIRST VICE PRESIDENT AND FOUR REGIONAL TRUSTEES

Nominations are now open! This is an exciting time to be involved in mycology as it gains prominence in the general population. We encourage you to participate in NAMA, and contribute as it grows.

Duties of the positions are:

PRESIDENT

a. *Shall promote the growth and development of NAMA.*

b. *Shall preside at the meetings of NAMA and its Board of Trustees.*

c. *Shall appoint the chair of each committee and shall be a member ex officio of all committees of NAMA except the Nominating Committee and the Awards Committee.*

d. *Shall, with the assistance of the Board of Trustees, set the date of the annual meeting.*

e. *Shall advise and assist the Secretary and the Executive Secretary in the preparation and distribution of the agenda for each business meeting of NAMA and its Board of Trustees at least 30 days prior to the annual meeting.*

f. *Shall submit an annual report to the Board of Trustees.*

FIRST VICE PRESIDENT

a. *Shall promote the growth and development of NAMA.*

b. *Shall substitute for the President in the absence or incapacity of the President and if not up for re-election, shall chair the Nominating Committee.*

c. *Shall coordinate with the Regional Trustees, offering whatever assistance is needed for their work with local clubs.*

REGIONAL TRUSTEE

The Regional Trustee acts as the liaison between NAMA and the mycological clubs (both affiliated and unaffiliated) in his or her region. The responsibilities of the Regional Trustees - within their regions - are:

1. *To promote the growth and development of NAMA*

2. *To work with the Affiliated Clubs as follows:*

   a. *arrange to have Club events posted on the NAMA Website.*

   b. *send NAMA information to the Clubs for publication in their newsletters, websites and message boards.*

   c. *request Clubs to place a link to the NAMA website on their websites and message boards.*

   d. *encourage Clubs to have their members join NAMA and add NAMA membership applications to their membership drives.*

   e. *work with the NAMA Membership Secretary to collect NAMA club dues in a timely manner.*

   f. *to identify and contact each non-affiliated mycological club and encourage it and its members to join NAMA, and provide any necessary assistance and/or paperwork.*

   g. *to submit an annual report to the Board of Trustees.*

The four regions for which Regional Trustee nominations are open are:

Appalachian (clubs include: Blue Ridge Mycological Society, Cumberland Mycological Society, Mushroom Club of Georgia, North Alabama Mushroom Society, South Carolina Upstate Mycological Society, West Virginia Mushroom Club, Western Pennsylvania Mushroom Club)

Boreal (Alberta Mycological Society, Foray Newfoundland & Labrador)

Great Lakes (Hoosier Mushroom Society, Illinois Mycological Association, Michigan Mushroom Hunters Club, Minnesota Mycological Society, Mycological Society of Toronto, Ohio Mushroom Society, Wisconsin Mycological Society)

Rocky Mountain (Arizona Mushroom Club, Colorado Mycological Society, Four Corners Mushroom Club, Mushroom Society of Utah, New Mexico Mycological Society, North Idaho Mycological Association, Pikes Peak Mycological Society, Southern Idaho Mycological Association, SW Montana Mycological Association)

The term of service for all positions is 3 years, from January 2022 through December 2024.

Please send your nominations to Second Vice President, Laura Juszczak, at: vicepresident2@namyco.org

Self-nominations are welcome. If nominating someone else, be sure to confirm that they are willing to serve. **All nominations must be received by 10:00 PM Friday, June 4, 2021.** Nominations for these positions will be posted in the July-August issue of *The Mycophile*.

Thank-you.

TELLURIDE MUSHROOM FESTIVAL

Make your Colorado adventure a double mycofeature by attending both CONAMA 2021 and the 41st annual Telluride Mushroom Festival , which will take place August18–22, 2021, on the southwestern slopes of the Rockies. This event mixes serious mycological science with the spiritual and countercultural. Highlights include a line-up of notable speakers, including Jessica Langley, William Padilla Brown, Dr. Andrew Wilson, Katrina Blair Chad Hyatt, and Dr. Britt Bunyard, as well as the mind-bending Goodtimes Mycolicious Mycoluscious poetry and the traditional Mushroom Parade, led by in which you dress up as your favorite mushroom to win coveted mycoprizes. Registration is available at https://www.tellurideinstitute.org/telluride-mushroom-festival/

BURN MORELS: MYSTERY AND SCIENCE

by Kristen and Trent Blizzard

Each year like clockwork, North America lights up with a frenzied mania for the spring morel (*Morchella spp.*). Yet, the morel experience is markedly different in the West vs. the East. Eastern morels progress northward with foragers focusing on certain types of hardwood trees during the short few weeks of fruiting at any given latitude.

Western morels move from deciduous trees in riparian areas to conifer trees on mountain slopes as spring turns into summer. Foragers can pick for months by simply heading uphill. Most importantly though, the West has burn morels or fire morels, which grow in the scar of a recent wildfire. In normal conditions these mushrooms grow with a great abundance that is rarely seen outside of a burn.

What Are They

Morel hunters in the East and Midwest often have a totally different understanding of "burn morels". For these hunters they are simply morels that are found somewhere in a burn disturbance. Common sense, right? Not so fast…

When we discuss burn morels we don't mean a morel that is found where it burned. Instead we are specifically referring to a unique species of morel that typically displays three characteristics:

1. They only grow in conifer forests
2. With a few exceptions, in North America, they only grow in the Western US
3. They only grow after a fire (not after clear cuts or logging activity)

Fire morels live in the ground in a mycorrhizal relationship with conifer trees and their roots. Although they are always there, they only fruit after a significant fire event! These mushrooms might lie in hiding for 50 years or more, just waiting for a fire to come through and activate them. The actual cause of their activation is still a scientific mystery but certainly fun to theorize about. Fire changes the soil chemistry which is likely to to be a factor. Perhaps the phenomenon is an elegant survival response to the death of the tree host? This Morchella species does not fruit after clear cutting, so more than just the death of the host is required.

Fortunately for us, these mushrooms follow an entirely predictable mantra, becoming attainable prey and a rewarding study.

Burn Morel Species

Widely considered "black morels", burn morels present a range of colors from black to grey, tan, greenish, pinkish or yellowish. Taxonomically speaking, there have been a lot of revisions over the last 10 years with DNA testing filling in the blanks of these morphologically similar species. We are not mycologists or geneticists, but here

is what we have learned: There are at least four clearly defined burn morel species and a fifth strong candidate.

The most iconic of the burn morels is *Morchella tomentosa.* It has several highly recognizable features: dense double wall construction with small hairs (velvet) on the stem which are especially noticeable when young. Tomentosas have a striking color scheme, can grow large, and are usually the last to fruit. They might be called grays, blacks, black foot or fuzzy foot by foragers in the field. These meaty mushrooms are a prize for any chef!

The next three are *Morchella sextelata, Morchella eximia and Morchella exuberans. M. sextelata* and *M. eximia* are difficult to distinguish without a lab. Foragers may commonly call them conicas, pinks and/or pickles. *Morchella brunnea* is probably the fifth species of burn morel but the evidence is not conclusive.

Duration

We are often asked if burn morels grow in subsequent years after a fire, or only in year 1. This is an interesting study. You will find varying reports. The general theory is that they grow most predominantly in year 1, and with ideal weather conditions will continue to fruit in years 2 and 3 at reduced numbers. This is consistent with our personal experience. While you may find morels out further than 3 years on the burn scar timeline, only DNA sequencing can tell us definitively whether or not they are a true burn morel species at that point.

Another interesting theory, relevant in dry climates such as Colorado, is that a burn which did not fruit in year 1 due to inadequate weather conditions will fruit aggressively in year 2. We have yet to discover the answer to this, to be determined...

The Hunt

Once you realize burn morels *almost* always follow the rules, then finding them becomes about learning their habits. We already mentioned that you begin in burn scars in the Western US, and that you are looking for mixed conifer forests. But there is a bit more to know.

A signature of these mushrooms is that you can hunt them for months if the weather is ideal. As the season matures, they move up in elevation.

In order to experience success, you must have at least average precipitation for the location. A wildfire scar with no rain will yield almost nothing. Steady rain patterns will usually cause widespread fruiting. If conditions are good, one hillside may fruit 2 or 3 times, as each species takes its turn, over several weeks.

In the right kind of burned forest, in the right area of the country, with good moisture, you are almost always guaranteed to find burn morels. A LOT of burn morels in fact. If the habitat is favorable, these mushrooms can be prolific. Forget about counting mushrooms, it is not uncommon to fill a five gallon bucket in a few hours.

Elevation is an important factor. Burn morels start low and move up as the season progresses. It's important to have an idea of where to begin. Don't hesitate to scour morel and mushroom hunting Facebook groups in the area (years back as well). People will often share the timing and elevation information of their finds.

A general understanding of aspects is imperative for mountain hunting. South facing slopes are dryer and warmer. In the early season, this might be where you start. However, if you are facing a general lack of rain, North facing slopes stay cooler and hold moisture longer.

In severely dry environments, micro climates are key. These environments trap moisture, such as underneath shade producing logs or inside root holes and other depressions. Often morels will grow near a forest seep or other water source when it's very dry.

Pre-Trip Research & Mapping

Often burn hunting requires a fairly significant drive so it pays to do a little research before you go. A successful hunt asks you to first consider these factors:

Access - some fires are located in remote areas with no road access. How will you approach? Is there a clear path into the fire?

Tree Type - Make sure to research the tree type in the forest burned. If you don't have conifers, you likely won't find morels. Mixed conifer forests containing spruce and fir trees are often best. However, pending location, burn morels can also be found with other types of conifers such as ponderosa or Douglas fir.

Land Type - Do you know where the fire perimeters are located? Do you have a reliable map? Are you on private land, in a reservation, a National Park, Wilderness or state land? We target National forest lands which always offer rules for hunting and often require a permit. Fire data can be hard to find, make sure you have reliable resources.

Elevation - Burn morels grow in elevation rings, once you find the elevation they are at *right now*, you can reliably bank on it within 100-200'.

Aspect - We often start on North facing slopes and then look for East or West facing gullies. When conditions are good, aspect won't matter.

Fire Size - If you have a long way to travel, often a larger burn is an ideal destination. It offers the best chance for you to check a variety of elevations and aspects.

Safety

Hunting in a wildfire scar can be dangerous. It is important to take the utmost care when trekking

through a burn. You may encounter a few treacherous scenarios:

Tree roots burn well into the ground leaving hidden and sometimes cavernous holes. It is possible to easily lose your footing and tweak an ankle or knee.

1. Wind is not a friend. If it's windy, come back another time. Dead trees blow over, easily.
2. Heavy rain on a steep slope is also quite dangerous. The top 2-3 inches in a burn is often ash, and when wet, it's nearly impossible to gain footing on a slope. In these conditions it can be very, very slippery! Also take heed of flash flood warnings.
3. Make sure your party has some kind of GPS device as well as walkie talkies. Like any foray, it is easy to lose your way in a burn, where you often wander for miles.

Permits & Closures

Burns are often closed as a safety precaution or for logging operations. Always check the status before you hop in the car, the Forest Service does a good job keeping this information up-to-date. You will also need to check with your local Ranger Station before you go. Most National Forests require a mushroom hunting permit. In certain areas of the country, such as Oregon & California, this is taken very seriously.

Commercial Hunters

If you are in the right spot, you will likely encounter commercial mushroom hunters. You may even see a mushroom buyer setup in a nearby town. Do not despair. Often, these folks are friendly - they are out there entirely focused on doing a job. They pick incredibly fast and go after the low hanging fruit, often leaving mushrooms behind. There is usually plenty of forest and enough mushrooms for everyone.

Sustainability

Respect for the forest is always a must, please leave no trace. Because burn morels only fruit in wildfire scars, the discussion about sustainability is nuanced. These mushrooms come out in the millions, and just as quickly, they go. Research indicates that limits set for recreational harvesting to date appear appropriate and sustainable. As with many mushrooms, the health of the forest is paramount for species sustainability.

An Unforgettable Journey

If you are planning a trip, note that you will need to be flexible and mobile. It may be difficult to make concrete plans, Mother Nature is the boss. We often plan only where to begin, flagging 3 or 4 potential fire destinations. We tow our camp trailer, park in the forest for 3 days and then find an RV park intermittently to clean up and power our dehydrators. Then back to the forest and the cycle continues.

We hit the road each year, traveling from Colorado to Oregon in late May and June to hunt the burns. Burn morels are the destination and we follow the rain around the west, chasing mushrooms and sometimes getting schooled. It is one of the most rewarding experiences of our foraging year. Keep an open mind and embrace your sense of adventure! If you've done your research, you will find burn morels.

Enjoy the hunt, perhaps we'll see you out there!

Authors, Kristen and Trent Blizzard, have been hunting burn morels for years. They offer curated morel burn maps for 11 Western states and more resources at modern-forager.com. They are also the authors of *Wild Mushrooms: A Cookbook and Foraging Guide*.

North American Mycological Association

2021 Visual Arts Contest

Categories:

1. Photography
2. Digital Art
3. Drawing and Painting -Traditional
4. 2D Mixed Media – Traditional
5. 3D - Sculpture
6. 3D -Fiber Arts

All forms of art are accepted. When submitting, please choose the category you feel your work best fits into.
(See category guidelines below)

Rules:

1. Participant must be a resident of North America. Membership in NAMA is not required.
2. Each participant may enter up to 6 pieces total in the contest, with no more than 3 entries for any one category.
3. No adult content. Entries must be 'family friendly'.
4. Art must visually depict fungi somewhere in the piece and/or use fungi as an ingredient (Examples: dyed or painted with pigments made from mushrooms, dried mushrooms in mixed media, etc.)
5. By entering, entrant agrees to allow NAMA the use of submission images in our newsletter and social media. (Include your @name if you want to be tagged on Instagram.)

Prizes:

First place winner in each category will receive a certificate award and a one year membership to NAMA.
Honorable mention certificates may be presented for entries found to be of particular interest but do not place.
Notable entries will be displayed in a slide show presentation at the national foray in Colorado (Aug 12-15, 2021).

Submitting:

Submit 1 quality photo per entry (3D categories may submit up to 3 photos per entry) preferably in jpg format and in a high enough resolution that it can be projected on a screen without pixilation.
File name should ideally be labeled with identifying info such as entrants name and category.
Example: "JonSmith.Sculpture.jpg"
Email your files and any questions to contest coordinator, Rose Tursi at TursiArt@gmail.com
Include "NAMA art contest" in the subject line and any other relevant info in the body of the email.
Entries are due by July 15, 2021. Voting will be conducted by a jury selected by the Visual Arts Committee.
Winners will be announced at the national foray in Colorado, August 12-15, 2021.

Category guidelines:

Photography: Scientific and Pictorial photographs. Entries may not contain text or stickers/clipart/etc (enter those under Digital Art.)

Digital Art: Includes photo manipulation, digital illustration, digital collage. May include some animated elements (Example: like a gif.)

Drawing and Painting: Traditional pencil/charcoal drawings, ink, markers, watercolor, gouache, acrylic, oil, etc.

2D Mixed Media: Traditional artwork in which more than one medium or material has been employed. This includes collage, assemblage, etc. Art can have some dimension, but is viewed primarily has 2D.

3D – Sculpture: Includes pottery, sculpture, jewelry, miniatures, 3D mixed media, and any other dimensional crafts that do not fall under 'fiber arts'.

3D – Fiber Arts: Knitting, crocheting, felting, etc. Also includes all sewing, quilting and most wearable art. (Mixed media in which fiber and/or fabric are the primary component should be entered here.)

The contest coordinator may, at their discretion, change the category of an entry or reject an entry that does not fit the spirit of the contest.